

CLAIMS

1. A method for detecting contaminants during a semiconductor fabrication operation involving a semiconductor coating device, said method comprising the steps of:

generating a beam of laser light from a said laser light source attached to at least one coater cup associated with said semiconductor coating device utilized in said semiconductor fabrication operation; and

automatically terminating said semiconductor fabrication operation, in response to detecting said contaminants utilizing said beam of laser light, wherein said contaminants are scattered as a result of said semiconductor fabrication operation.

2. The method of claim 1 further comprising the step of:  
detecting contaminants utilizing said beam of laser light.

3. The method of claim 1 further comprising the step of:  
attaching a laser light source to said at least one coater cup associated with said semiconductor coating device.

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4. The method of claim 1 wherein said coater cup comprises a photoresist (PR) cup.

5. The method of claim 1 wherein said laser light source comprises a laser generator.

6. The method of claim 1 wherein said laser light source comprises a laser detector.

7. The method of claim 1 wherein said laser light source comprises a laser generator integrated with a laser detector.

8. The method of claim 1 wherein said semiconductor fabrication operation comprises a wafer spin coating operation.

9. The method of claim 1 wherein said contaminant comprises dust.

10. The method of claim 1 wherein said contaminant comprises photoresist (PR) dust scattered as a result of a wafer spin coating operation.

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11. The method of claim 1 further comprising the step of:

detecting contaminants utilizing said beam of laser light,  
wherein said contaminants comprise an abnormal photoresist dust  
flow.

12. The method of claim 1 further comprising the step of:

detecting contaminants utilizing at least one laser  
detector to detect said beam of laser light generated from said  
laser light source.

13. The method of claim 12 wherein said laser light source is  
generated by at least one laser generator.

14. The method of claim 1 wherein said at least one coater cup  
is configured from a transparent material.

15. The method of claim 14 wherein said transparent material  
comprises quartz.

16. The method of claim 14 wherein said transparent material  
comprises glass.

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17. A system for detecting contaminants during a semiconductor fabrication operation involving a semiconductor coating device, said system comprising:

a said laser light source attached to at least one coater cup associated with said semiconductor coating device utilized in said semiconductor fabrication operation, wherein said laser light source generates a beam of laser light;

a laser detector for detecting contaminants utilizing said beam of laser light, such that said contaminants are scattered as a result of said semiconductor fabrication operation; and

wherein said semiconductor fabrication operation is automatically terminated, in response to detecting said contaminants utilizing said beam of laser light.

18. The system of claim 17 wherein said coater cup comprises a photoresist (PR) cup.

19. The system of claim 17 wherein said laser light source comprises a laser generator.

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20. The system of claim 17 wherein said laser light source comprises a laser detector.

21. The system of claim 17 wherein said laser light source comprises a laser generator integrated with a laser detector.

22. The system of claim 17 wherein said semiconductor fabrication operation comprises a wafer spin coating operation.

23. The system of claim 17 wherein said contaminant comprises dust.

24. The system of claim 17 wherein said contaminant comprises photoresist (PR) dust scattered as a result of a wafer spin coating operation.

25. The system of claim 17 wherein said contaminants comprise an abnormal photoresist dust flow.

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26. The system of claim 17 wherein said contaminants are detectable utilizing at least one laser detector to detect said beam of laser light generated from said laser light source.

27. The system of claim 26 wherein said laser light source is generated by at least one laser generator.

28. The method of claim 17 wherein said at least one coater cup is configured from a transparent material.

29. The method of claim 28 wherein said transparent material comprises quartz.

30. The method of claim 28 wherein said transparent material comprises glass.

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